AVDSP

Video Processor User Manual

VSP 526

RGBlink Science & Technology Co., Ltd.

The pictures and data in the user manual are consult only, if there is fluctuation, according to the real object please!

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1.0 Safety

The general safety information in this summary is for operating person. Any requirement, please feel freely to contact our service engineer.

	Power Source This product is intended to operate from a power source between 85~265 volts rms . This product is only workable under correct power condition, which is already mark on the back panel of the power.
	High Voltage There are many high voltage components inside.
	Do not Remove Covers and Panels Do not remove Covers in any conditions. There are not any spare components inside for maintenance, so do not maintain this product by userrselves, any requirement, please feel free to contact our service engineer. Keep heavy device from power cord.
	Grounding the Product and Use the Proper Fuse This product is grounded through the grounding conductor of the power cord. To Avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals.
	Keep away from Magnet, Motor, TV and Transformer.
	Guard Against Damp Keep using inside clean and dryness environment, once the device get wet, must remove power cord right now.
	Keep away Exploder Do not operate the device inside dangerous and easy explosive gas, which it may make fire, blast or something without expectation.
	Keep away Pour Liquid and Fragment It is forbid to pour liquid, metal fragment or anything else inside this device to avoid fire and other accident. Once that happens, must remove power cord and try to make it clean before power on again.

2.0 Specification

AVDSP series video processors are designed by the latest high performance image processing technology. AVDSP can handle following video without limit, include CVBS（Composite）、S-Video (YC)、YCbCr、YPbPr、RGBHV（VGA）、DVI-D、HDMI、SDI（SD-SDI、HD-SDI） and USB.

Compare table of AVDSP as following.

RGBlink AVDSP Series Video Processor Compare Table

Product	RGBlink	1S	3S					5S						6S								7S
	Application	LED Video Processor	Video Mosaic				MultiViewer	LED Video Processor						LED Video Processor								Video Controller
Parameters	Model	VSP 112	VSP 310	VSP320	VSP330	MVP320	MVP 330	VSP516	VSP516S	VSP516H	VSP526	VSP526S	VSP526P	VSP618	VSP618B	VSP618C	VSP618D	VSP618BC	VSP618BD	VSP618CD	VSP618BCD	VSP709
Input	Composite	×2	-	-	-	Module	Module	×3	×3	×3	×3	×3	×3	×3	×3	×3	×3	×3	×3	×3	×3	×6
	SVideo	-	-	-	-	-	-	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×2
	YCbCr	-	-	-	-	Module	-	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×2
	YPbPr	-	-	-	-		-							×1	×1	×1	×1	×1	×1	×1	×1	
	SDI (SD/HD Compatible)	-	-	-	-	-	Module	-	×1	-	-	×1	-	-	×2	-	-	×2	×2	-	×2	×2
	DVI	×1	×1	×1	×2	Module	-	×1	×1	×1	×1	×1	×2	×1	×1	×1	×1	×1	×1	×1	×1	×2
	HDMI		-	-		-	-						×1	-	-	×2	-	×2	-	×2	×2	
	VGA	×1	×1	-	-	Module	-	×1	×1	×1	×1	×1	×2	×1	×1	×1	×1	×1	×1	×1	×1	×2
	USB	×1	-	-	-	-	-	-	-	-	×1	×1	×1	-	-	-	-	-	-	-	-	-
	Audio	-	-	-	-	-	-	×5	×5	×5	×4	×4	×4	-	-	-	-	-	-	-	-	×2
Output	Composite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SVideo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	YCbCr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	YPbPr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SDI (SD/HD Compatible)	-	-	-	-	-	-	-	-	-	-	-	-	-	×1(loop)	-	-	×1(loop)	×1(loop)	-	×1(loop)	-
	VGA	×1	-	-	-	Module	-	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1	×1
	DVI	×1	×2	×4	×5	Module	-	×1	×1	×1	×1	×1	×3	×1	×1	×1	×1	×1	×1	×1	×1	×1
	HDMI	-	-	-		-	×1	-	-	-	-	-	-	-	-	-	×1	-	×1	×1	×1	×1
	Audio	-	-	-	-	-	-	√	√	√	√	√	√	-	-	-	-	-	-	-	-	√
Function & Service	Motion Compensation	Good	-	-	-	g	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	Fade in Fade out	-	-	-	√	-	-	-	-	-	-	-	√	√	√	√	√	√	√	√	√	√
	Remote Control	√	-	-	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Video Processing Bits	10Bit	10Bit	8Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit	10Bit
	Picture In Picture	-	-	-	√	√	√	√	√	√	-	-	√	√	√	√	√	√	√	√	√	√
	Quad Picture	-	-	-	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√
	Multi Picture	-	-	-	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Gamma	√	-	-	-	-	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Brightness	√	-	-	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Contrast	√	-	-	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Timing Schedule	√	-	-	√	-	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	LOGO Overlay	-	-	-	√	-	√	-	-	-	-	-	√	√	√	√	√	√	√	√	√	-
	Subtitle Overlay	-	-	-	√	√	√	-	-	-	-	-	√	√	√	√	√	√	√	√	√	-
	Pixel Based Scale	√	-	-	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Video Mosaic	-	√	√	√	√	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
	Video Overlay	-	-	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Video Rotate	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Video Exchange	-	-	-	-	-	-	-	√	√	√	√	-	√	√	√	√	√	√	√	√	√
	Video Copy	-	-	-	-	-	-	-	√	√	√	√	-	√	√	√	√	√	√	√	√	√
	Refresh Rate	60Hz	60Hz	60Hz	60Hz	60Hz	60Hz	60Hz	60Hz	60Hz, 75Hz	60Hz	60Hz	60Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz	50Hz-85Hz
	Output Resolution(Single Port)	1920×1080	1920×1080	1440×900	1920×1080	1920×1080	1920×1080	1280×1024	1280×1024	1920×1080	1920×1080	1920×1080	1920×1080	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152
	Digital Clock	√	-	-	-	-	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Remote Control Interface	USB	RS 232+USB+TCP/IP	Mini DIP	RS 232+USB+TCP/IP	RS 232+TCP/IP	RS232+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP	RS232+USB+TCP/IP
	Control Software	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Front Panel	16 button + LCD Module	16 button + LCD Module	Mini DIP	32 button + LCD Module	-	-	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module	32 button + LCD Module
	Outlet	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry	Industry
	Standard 1 Unit	√	-	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Standard 3 Unit	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Standard 8 Unit	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Standard 12 Unit	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Weight	2Kg	2Kg	1Kg	2Kg	3.5Kg(S)	6.5Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg
	Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
	CE Certification	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	FCC Certfication	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	RoHS Certification	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

3.0 Parameters

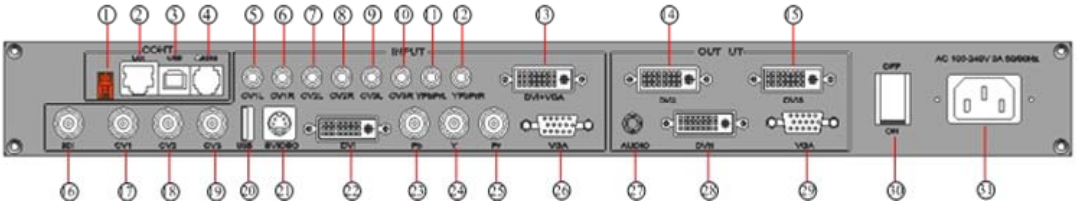
Composite BNC Input	
Number of Inputs	3
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm
Number of Inputs	480i,576i
S-video DIN4 Input	
Number of Inputs	1
Supported Standards	PAL/NTSC
Signal Level	Y:1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm U/V:0.7Vpp±3dB 75ohm
Supported	480i,576i
YPbPr BNC Input	
Number of Inputs	BNC*3
Supported Standards	Anologue HD Input 480i,576i,480p,576p,720p50,720p60,1080i50,1080p50 1080i60,1080p60
Signal Level	Y:1Vpp±3dB (0.7V Video+0.3v Sync) 75ohm Pb/Pr:0.7Vpp±3dB 75ohm
VGA DB15 Input	
Number of Inputs	1
Connector	Standard DB15 socket
Supported Standards	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level：300mV Sync-tip：0V
Support input Standards	VGA-UXGA (800*600@60, 1024*768@60, 1280*1024@60, 1440*900@60,1600*1200@60)
DVI Input	
Number of Inputs	1
Connector	Standard DVI-I socket
Supported Resolution	SMPTE：625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50,1080P59.94/60,1080i50,1080i59.94/60, 720p50,720p59.94/60 VESA：800×600×60Hz，1024×768×60Hz，1280×768×60Hz， 1280×1024×60Hz，1600×1200×60Hz， 1920×1080×60Hz

Signal Level	TMDS pwl，single pixel input，165MHz bandwidth
Standard	HDMI 1.3
SDI input(Optional Module)	
Number of Inputs	1
Connector	BNC
Data Rate Range	19.4Mbps~1.5Gbps
Supported Standards	ITU-R BT.656,ITU-R BT.601,SMPTE 259M, SMPTE 292, SMPTE 297
Equalization）	Belden 1694A 100M HD1.485G ， 350m SD 270Mbps
USB Input	
Number of Inputs	1
Connector	Standard USB Connector
Supported Standards	Image: JPGE,BMP,PGN Audio: WMA,MP3,M4A(AAC) Video: MPEG2,MPEG3, MPEG4,H264, RM,RMVB,MOV, MJPEG, VC1,DivX,FLV
DVI+VGA Inputs	
Number of Inputs	1
Connector	Standard DVI-I Interface
Supported Standards	VGA: (VESA)1024×768×60Hz，1280×1024×60Hz DVI: (VESA)800×600×60Hz，1024×768×60Hz， 1280×768×60Hz，1280×1024×60Hz， 1440X900X60Hz,1400X1050X60Hz,1600×1200×60Hz, 1920×1080×60Hz，1920×1200×60Hz(SMPTE) 625/25/50PAL,525/29.97/59.94,NTSC1080P50, 1080P59.94/60,1080i50,1080i59.94/60,720p50,720p59.94/60
Signal Level	TMDS pwl， 165MHz bandwidth
Audio Input	
Number of Inputs	8
Connector	Standard RCA socket
Audio Standard	48Kbps 24bit balance analog audio
DVI1 Output	
Number of Inputs	1
Connector	Standard DVI-I Interface
Signal Level	TMDS pwl， 165MHz bandwidth
Supported Standards	VESA：800×600×60Hz，1024×768×60Hz，1280×768×60Hz， 1280×1024×60Hz, 1400×1050×60Hz, 1440×900×60Hz, 1600×1200×60Hz, 1920×1080×60Hz
DVI2/3 Output	
Number of Inputs	2

Connector	Standard DVI-I Interface
Signal Level	TMDS pwl， 165MHz bandwidth
Supported Standards	VESA: Straight: 800×600×60Hz，1024×768×60Hz，1280×768×60Hz， 1280×1024×60Hz，1440X900X60Hz,1400X1050X60Hz, 1600×1200×60Hz，1920×1080×60Hz,1920×1200×60Hz Split: 1600×600×60Hz，800×1200×60Hz， 2048×768×60Hz，1024×1536×60Hz， 2596×768×60Hz，1280×1536×60Hz ， 2596×1024×60Hz，1280×2048×60Hz ， 2880X900X60Hz，1440X1800X60Hz， 2800X1050X60Hz，1400X2100X60Hz， 3200×1200×60Hz， 1600×2400×60Hz， 3840×1080×60Hz，1920×2160×60Hz， 3840×1200×60Hz，1920×2400×60Hz
VGA Output	
Number of Inputs	1
Connector	Standard DB15 socket
Supported Standards	VESA：800×600×60Hz，1024×768×60Hz，1280×768×60Hz， 1280×1024×60Hz, 1400×1050×60Hz, 1440×900×60Hz, 1600×1200×60Hz, 1920×1080×60Hz,
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level：300mV Sync-tip：0V
Audio Output	
Number of Outputs	1
Connector	Standard 1/4” socket
Audio Standard	48Kbps 24bit balance analog audio
Function	
Source Switch	support alpha key operation between VGA2 / DVI2 and other inputs
PIP	PIP for SD with HD and HD with HD
AV Sync	support
Extras	
Communication	RS232 USB TCP/IP
Power Supply	85-264V 2A IEC-3
Working Environment	0°C~45°C
Stored Environment	10% to 90%
Product Warranty	1 year

4.0 Connectors and cables

4.1 VSP 526 connectors and signals



1、dial switch, more details please refer to Appendix II

2、10/100M interface (copper RJ45). Used to connect the computer by 568B-568A twist-pair;

3、USB: RS232 interface for controlling processor by AVDSP PC software;

4、RS232 interface (RJ11) for VSP processor. Used to connect the computer;

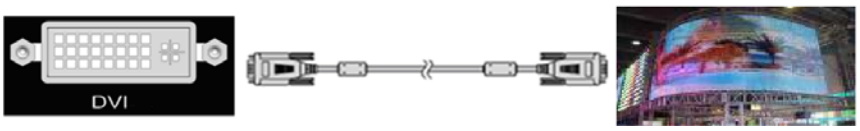
5~12、Audio interface, support audio signals from DVD player or audio sources;

13、DVI+VGA input interface。Input the video signal from computer, DVI signal generator. Connect to the DVI 2 interface on VSP526. (Note: This Connection does not comment for hot-plugging. DVI+VGA input is part of P module of VSP 526)

Also support input image signal from laptop through a DVI to VGA adaptor.

14~15、The output ports of DVI2 and DVI3，can be connected to the DVI monitors or LED screens with standard DVI input. （This Connection does not comment for hot-plugging. DVI2 and DVI3 output are part of P module of VSP 526）

The output image of the two ports can be each 1/2 of DVI1 (it can split pictures into two part in horizontal or vertical) and the resolution of them are always the same with DVI1.



16、SDI Input BNC, used to support SD/HD SDI input. Input the video signal from the HD player, HD projector. (SDI input is the optional module for VSP 526. VSP 526 with SDI input module is VSP 526S)

17~19、Composite input interface，Composite BNC. YCbCr compatible. Used to input composite signal from DVD, Set-top box, HD player and so on（PAL, NTSC, SECAM compatible）;

20、USB input interface, used to player media files from disk with USB connect or. Such as USB disk, Portable Hard Disk

21、S-Video DIN 4, used to input S-Video signal（PAL, NTSC, SECAM compatible）

22、DVI input interface. Input the video signal from computer, DVI signal generator. Connect to the DVI 1 interface on VSP 526（This Connection does not comment hot-plugging）;

23～25、Component input interface. used to input signal from players like DVD through three BNC connectors：R/Pr G/Y B/Pb from left.

26、VGA input interface, DB-15, used to support Analog RGB input; Connect to the VGA 1 interface on the VSP526.

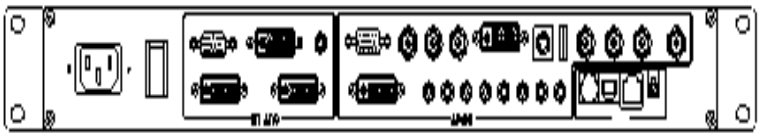
27、Audio interface, support audio signals from DVD player or audio sources;

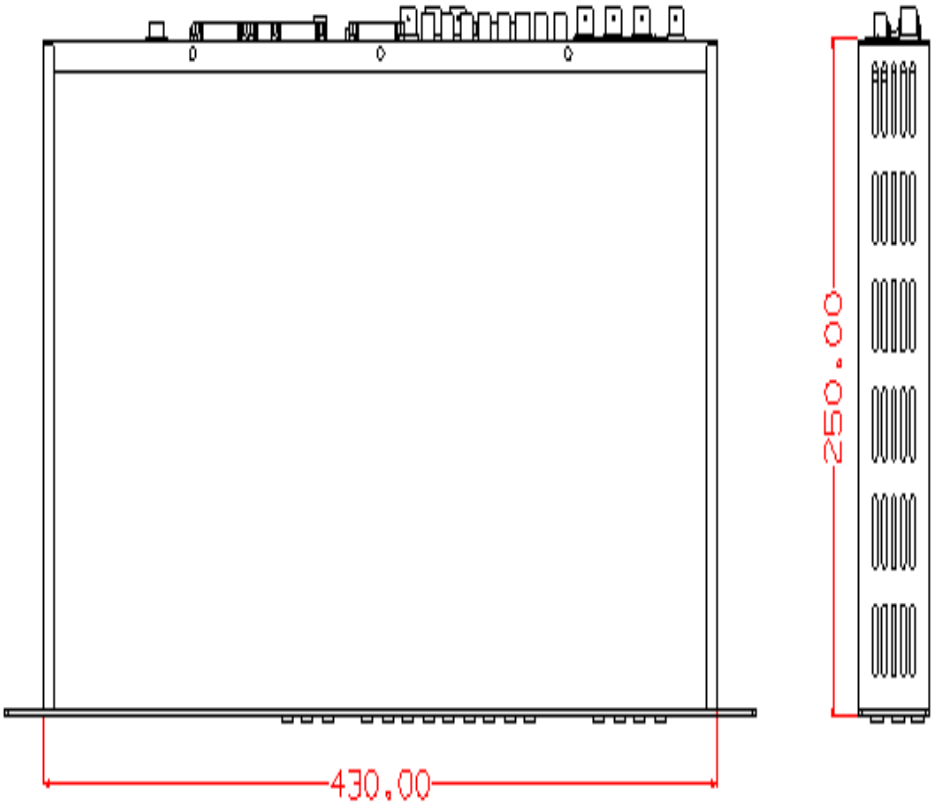
28、DVI1 output interface. connect to the monitor or LED screen which has DVI interface. （This Connection does not comment hot-plugging）

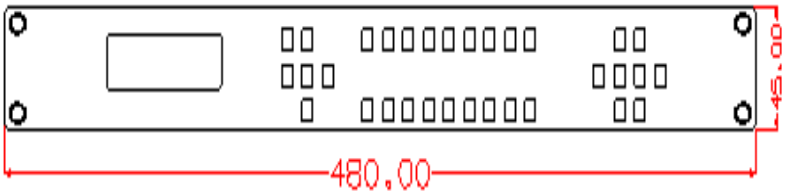
29、VGA output interface, connect to the monitor, projector and so on;

30～31、Switch and power. It must use IEC-3 power line. Always ground to avoid electric shock.

4.2 VSP 526 Size and installation





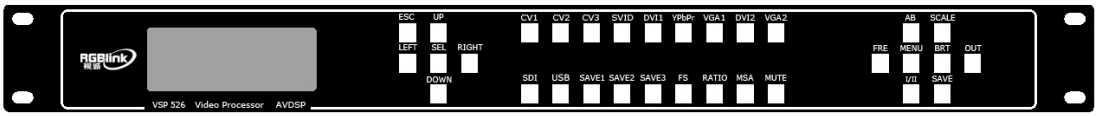


5.0 Front Panel Keyboard Operation

Insert power cord and push power button to ON position. LCD module on the front panel will show RGBLINK and go into self verification before it load the last setting config and send the processed image to the target display or device. For the first running,CV1 input is the default input source. With the front panel operation, users can operate the equipment with buttons and menu displayed on LCD module.

5.1 VSP 526 series Operator Guideline

VSP526 front panel as following:



1. LCD module ;

2. Keyboard;

ESC: push to exit from current choice item;

SEL: Push to confirm the current choice item;

UP: Push to select up items in LCD menu;

DOWN: Push to select down in LCD menu;

LEFT： Push to select the left items;

RIGHT：Push to select the right items;

CV1： Switch to composite1 input;

CV2： Switch to composite 2 input;

CV3： Switch to composite 3 input;

SVID： Switch to SVideo;

DVI1： Switch to DVI1 input;

YPbPr: Switch to high definition component;

VGA1： Switch to VGA1 input;

DVI2： Switch to DVI2 input;

VGA2: Switch to VGA2 input;

SDI： SDI input,compatible with HD/SD SDI,push to switch to SDI input;only support SDI input modules mode.(available to VSP526S or VSP526SP models)

USB： Switch to USB input;

SAVE1： Switch to use the user-defined mode1;

SAVE2： Switch to use the user-defined mode2;

SAVE3： Switch to use the user-defined mode3;

FS： Switch to select full screen or zoom view,just for single picture mode;

RATIO：switch to select aspect ratio 4：3 or 16：9;

MSA：**PBP** Switch to show two pictures in side by side mode;

MUTE： Switch to select mute sound or return;

MENU: Push to go to main menu;including device information,recall,language and Alpha.

FRE：Push to freeze the video image or live again;(Freeze->Live->Freeze)

AB: Push to AB mode, support wipe hard switch,wipe soft switch,wipe curtain hard switch,wipe curtain soft switch.

SCALE: Push to go to between Hsize→Vsize→HPOS→VPOS;

BRT：Push to adjust the brightness and the contrast ratio,push to enter to the relevant Menu,and then push the UP and DOWN to adjust the brightness and the contrast ratio.

OUT: Push to select the output format by using the UP and DOWN.

I / II: Push to set single or dual channel;

SAVE: Push to save current config.save1/save2/save3.

5.2 VSP 526 Video Processor Menu

System menu as follows;

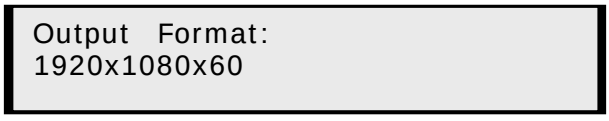
Devices can be connected to the LAN network by CAT5, if not, it will prompt: DHCP Failed as shown;

When the device accesses to the network ,it will be get an IP address automatically, menu as shown:

Push Menu, system main menu as shown;

Push the right and left direction key to select the left or right menu. Before the menu item, if there is a * sign, means the menu item has been selected, you can push the Sel key to enter it. The first line shows VSP526.Select Dev Info, it shows current input signals. If there is a composite input to CV1, the NO INPUT will show as the input composite format, such as 720*576i. As shown;

Push UP/DOWN to check current output format.



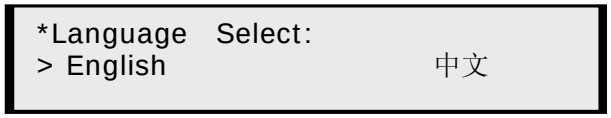
Push UP/DOWN to check current software version;

Push UP/DOWN to check current Video Processor serial number to get more available service and support;

Push LEFT/RIGHT direction, select RECALL to recall factory reset.after successful factory reset you will see the menu as shown;

Push UP/DOWN of the Menu to set LANGUAGE and HDMI output;

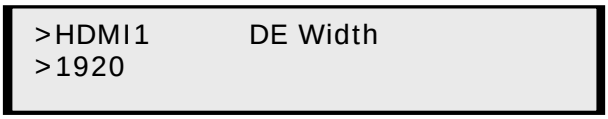
Push LEFT/RIGHT to select and enter submenu accordingly; enter LANGUAGE sub menu, as shown;



Select HDMI OUT to set DE and push LEFT/RIGHT to choose output format. as shown;

Select to enter DE setup mode, push LEFT/RIGHT or UP/DOWN to choose ON/OFF, SEL ON to set, which will check ON item with “*”.

Push LEFT /RIGHT to go to DE H Start , DE V Start, DE Width or DE Height, push UP/DOWN to change the values of them seperately;



in HDMI mode, push LEFT/RIGHT to choose output format. as it shown;

SEL to go into HDMI/DVI, push LEFT/RIGHT or UP/DOWN to choose the output formats of HDMI/DVI.

Push UP/DOWN to enter main menu to setup time and calendar.

Push SEL to set time.

Push LEFT/RIGHT direction to live time set-up. it shows * signal, the current revised will flash;

Push SEL to set Calendar, the left side shows calendar, right side shows the English Abbreviation of the day of the week.

Push LEFT/RIGHT to active the time, it shows * signal, the the inter-flash means currently to change, push UP/DOWN to change the flashing calendar and the day of week;

```
Calendar
*2010/01/01                    Fri
```

Push UP/DOWN to enter main menu to set AB seamless switch mode and scale function;

	Push AB directly to enter AB seamless switch mode;

```
>VSP 526
* Scale                        AB Mode
```

【AB Mode】： Wipe Right Soft switch, Wipe Left Soft Switch, Wipe Up Soft Switch, Wipe Down Soft Switch, Wipe Center In Soft Switch, Wipe Center Out Soft Switch, Wipe Plus Out Soft Switch, Wipe Right Hard switch, Wipe Left Hard Switch, Wipe Up Hard Switch, Wipe Down Hard Switch, Wipe Center In Hard Switch, Wipe Center Out Hard Switch, Wipe Plus Out Hard Switch,

Push LEFT/RIGHT to select Cut Switch (No delay switch) in AB mode; there are:

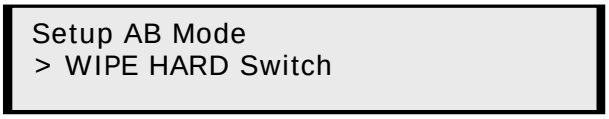
```
Setup AB Mode
> CUT Switch
```

```
Setup AB Mode
> DISSOVLE Switch
```

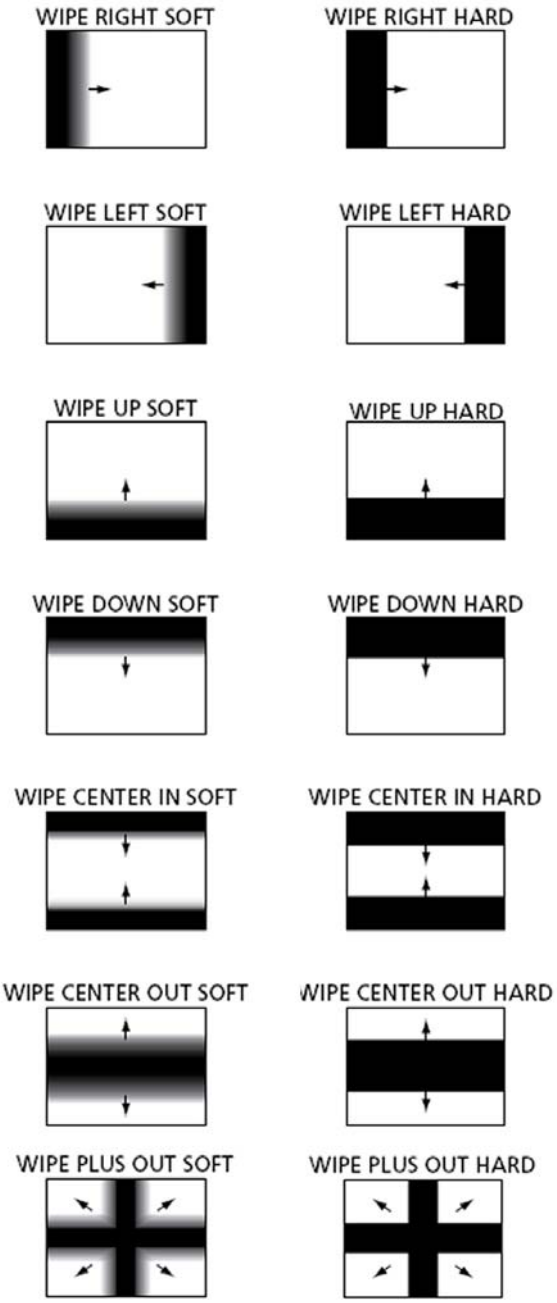
Push SEL to set Dissolve (Fade in Fade out) Duration; Push UP/DOWN to adjust the time of Dissolve Duratioin; adjusting ranging “0.5 s-30.0 s”

```
Dissolve Duration:
>3.0 s
```

Push SEL to set Wipe hard Switch.



Push UP/DOWN to check the seamless switches provided;



Push to scale;

Scale A Pos X: >0

Scale A Pos Y: >0

Push LEFT/RIGHT to set coordinates.

Push LEFT/RIGHT to set coordinates.

Touch UP / DOWN, find Advance in the【MENU】to do advanced split screen set;

Click on SEL to enter into Advanced settings, Touch LEFT / RIGHT to set the coordinate, width and height, as following pictures:

In the Aspect Ratio mode, the device offers 3 aspect ratio, except for above three normal modes, there are also:

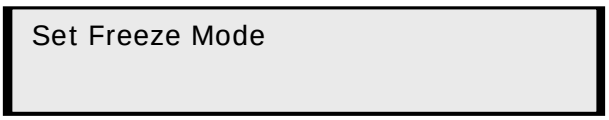
In the 【MENU】, by pressing LEFT/RIGHT to choose split function as shown:

Click SEL to confirm:

There are mode and location setting in split screen, select the MODE to enter split-screen mode, it offers 3 optional modes: Straight mode, 1 / 2 in horizontal and 1 / 2 in vertical, as shown:

Select Position by clicking LEFT / RIGHT, in dual screen mode, set of coordinates of image 1 and image 2.

Push to freeze the current video image or live again;(Freeze->Live->Freeze)



Or;

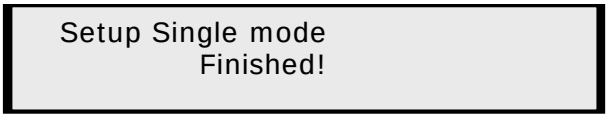
Push to set brightness and contrast ratio,push LEFT/RIGHT to set the brightness and contrast ratio of the current video image, as it shown;

Push UP/DOWN ,it shows *,to change the needed brightness and contrast ratio.

Push OUT to enter output format menu; push UP/DOWN to choose different output formats, and SEL the needed output format.

Push Ⅰ/Ⅱ to switch single and dual mode,as it shown;

Or;



push UP/DOWN to select different inputs, or push the input key to choose the inputs directly;

```
Source Select
>CV1
```

Push SAVE menu, it turns SAVE1/SAVE2/SAVE3

```
Save Setting To:
Press ESC To Exit
```

Push Save1 to save in the save1 mode;

```
Save Setting To:
SAVE1                    Finished!
```

Save successfully and push SAVE1 to call SAVE1 user config mode;Push SAVE2 and SAVE3 to call another two seperately.

	added SAVE notice function;
	when push SAVE, all SAVE1/SAVE2/SAVE3 will light on,users should push SAVE1/SAVE2/SAVE3 to save successfully.

Push FS to switch between full screen and samll display size which defined by screen parameters;

```
Picture Mode
Full Size
```

```
Picture Mode
Screen Size
```

【MUTE】Switch to select mute sound

```
MUTE ON
```

push again to return sound;

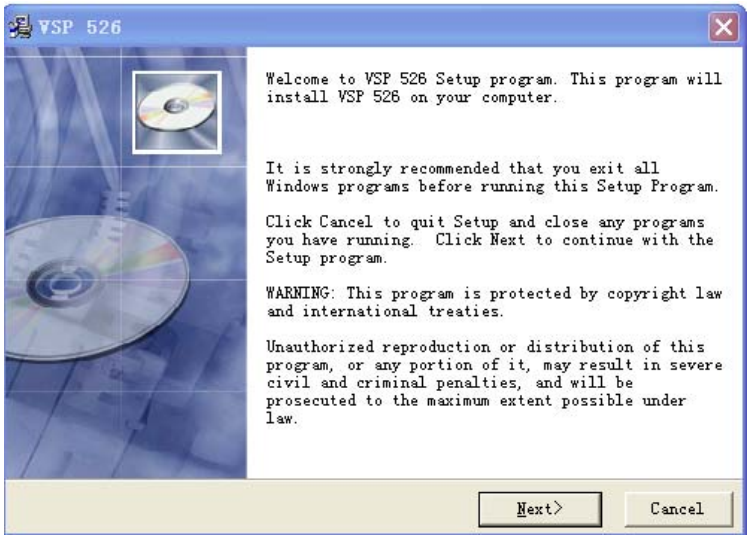
```
MUTE OFF
```

6.0 Communication Software Guideline

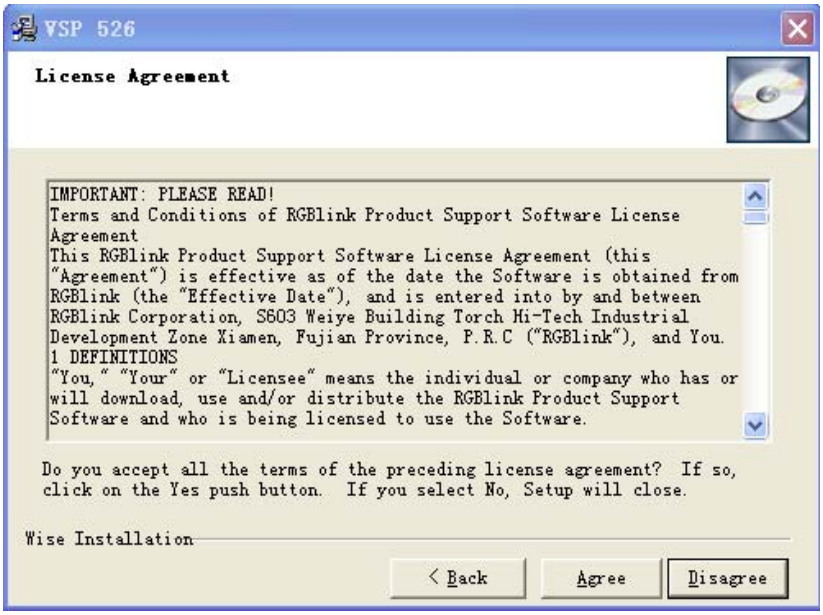
AVDSP video processor is very easy to be configured with user friendly interface, support drag and drop operation for edit and display. User can also customize with schedule function.

6.1 Install Software

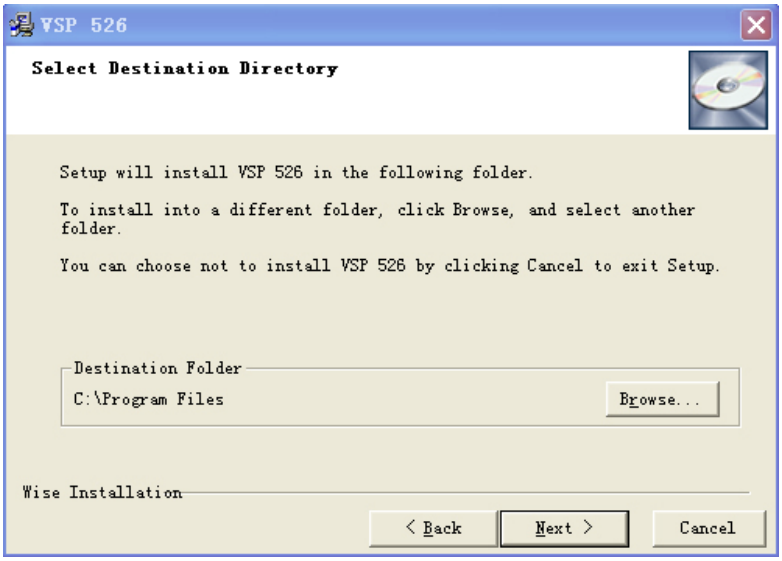
Dual click AVDSP.exe to run install, select Chinese or English version for end user，and click “select ” to go on.


VSP 526
Welcome to VSP 526 Setup program. This program will install VSP 526 on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup Program.
Click Cancel to quit Setup and close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next>
Cancel

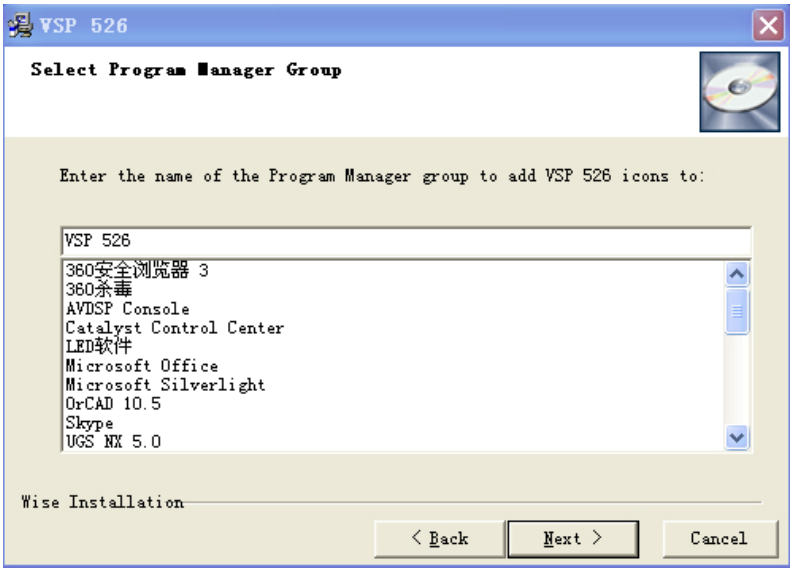
Please read carefully the license of agreement before installing VSP 526 console software, select the "Agree" to continue; select "Disagree" to quit, as shown:


VSP 526
License Agreement
IMPORTANT: PLEASE READ!
Terms and Conditions of RGBlink Product Support Software License Agreement
This RGBlink Product Support Software License Agreement (this "Agreement") is effective as of the date the Software is obtained from RGBlink (the "Effective Date"), and is entered into by and between RGBlink Corporation, S603 Weiye Building Torch Hi-Tech Industrial Development Zone Xiamen, Fujian Province, P.R.C ("RGBlink"), and You.
1 DEFINITIONS
"You," "Your" or "Licensee" means the individual or company who has or will download, use and/or distribute the RGBlink Product Support Software and who is being licensed to use the Software.
Do you accept all the terms of the preceding license agreement? If so, click on the Yes push button. If you select No, Setup will close.
Wise Installation
< Back
Agree
Disagree

After agree to the agreement, user can select install directory in the next dialog, and click next to install software to default directory “C:\Program Files” directly.

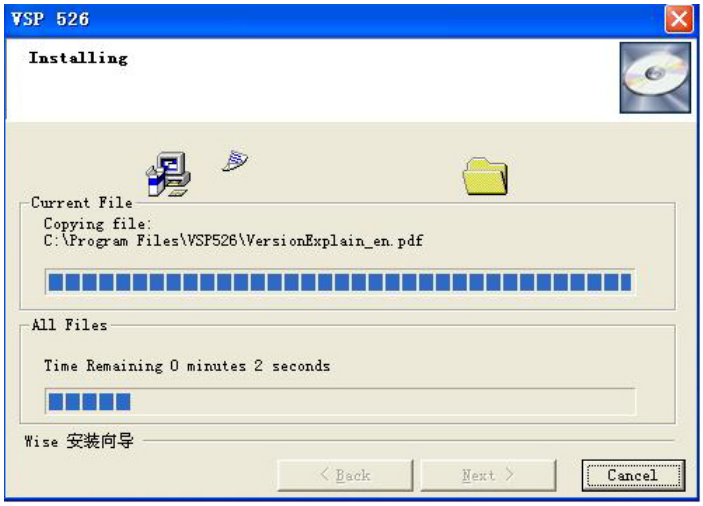

VSP 526
Select Destination Directory
Setup will install VSP 526 in the following folder.
To install into a different folder, click Browse, and select another folder.
You can choose not to install VSP 526 by clicking Cancel to exit Setup.
Destination Folder
C:\Program Files
Browse...
Wise Installation
< Back
Next >
Cancel

Click “next ”to go on.

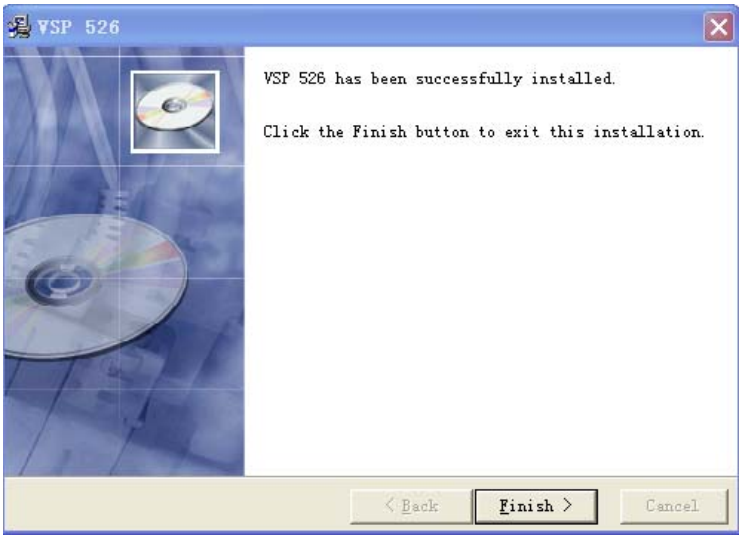


Click “next ”to go on.

VSP 526
Start Installation
You are now ready to install VSP 526.
Click the Next button to begin the installation or the Back button to reenter the installation information.
Wise Installation
< Back
Next >
Cancel

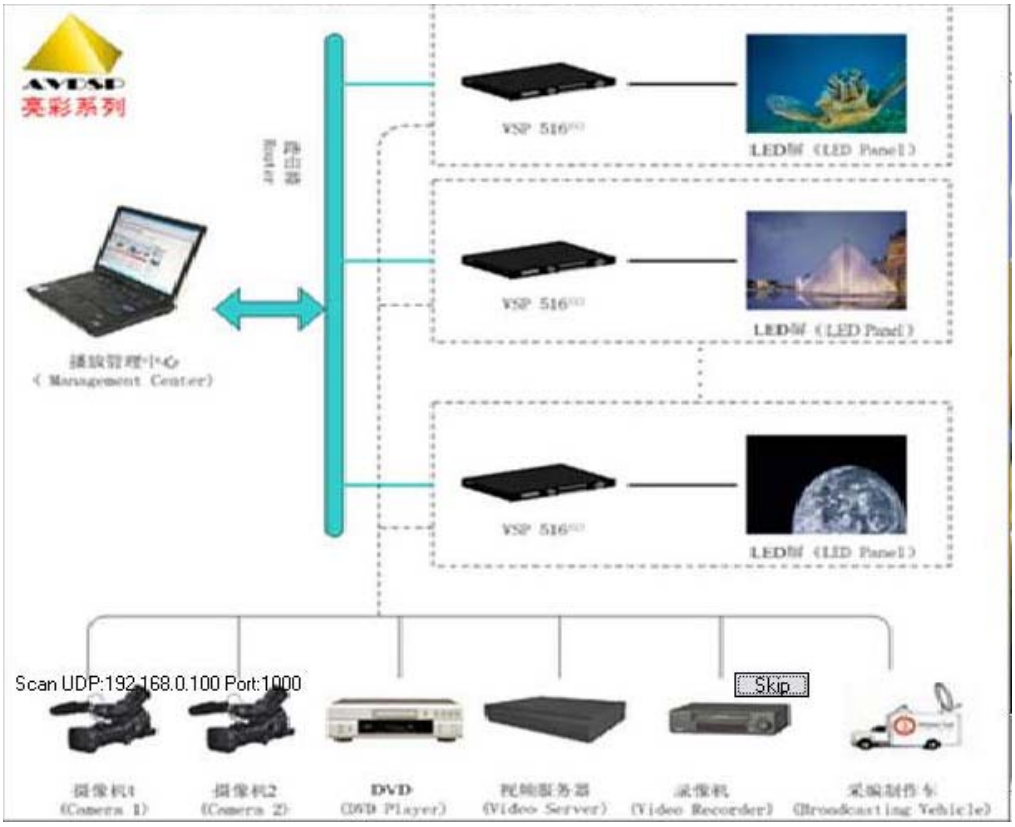


Click “finish” and ready to run AVDSP console.

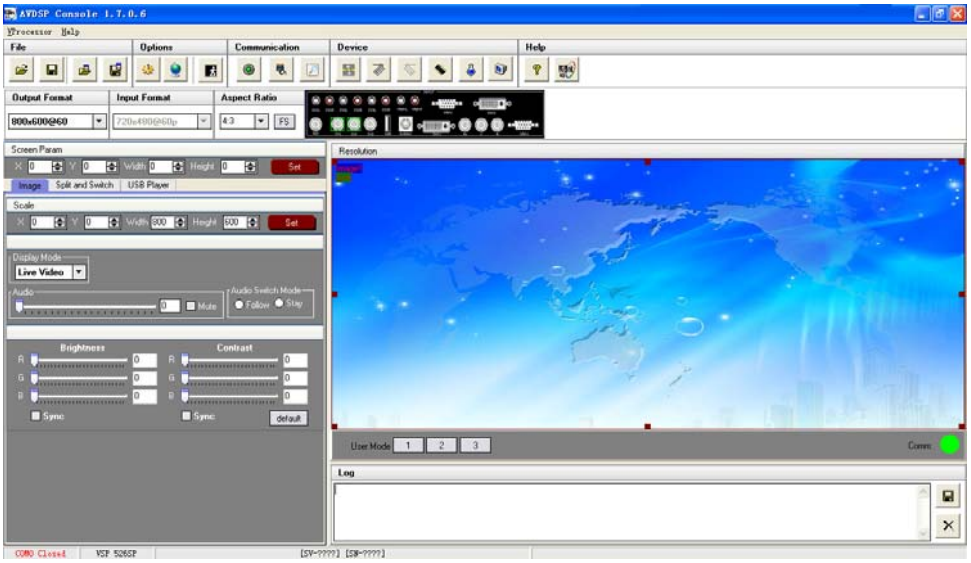


6.2 Run AVDSP Console

First run software will auto detect device in serial or networks by Comm port and pro-define IP address.



The software as following:

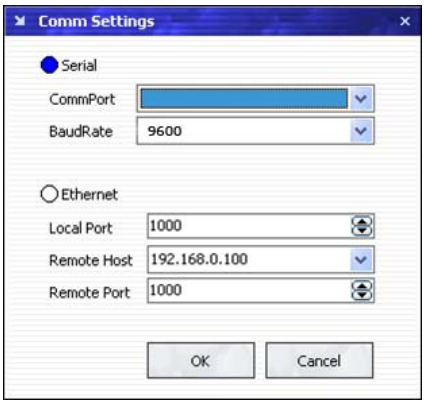


- **Setup Communication**

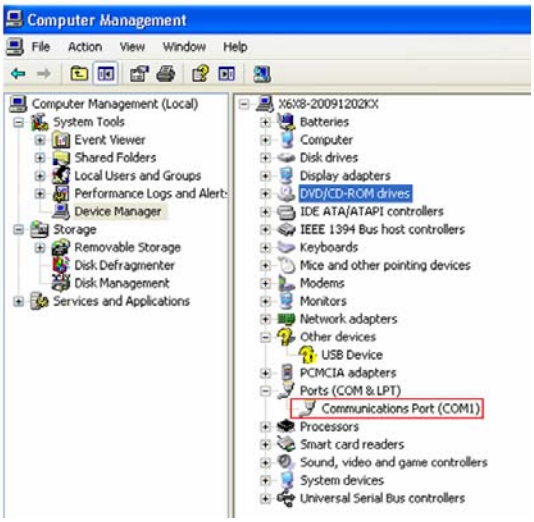
AVDSP Console support COM port or Ethernet (UDP) to access AVDSP.For the first running ,user must click the to close COM Port. Click to change the COM Port and the Baudrate.

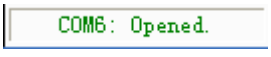
Serial: user can make choice between exist com ports and baud rates; default Baudrate is 9600.

Ethernet: user can fill any number less than 1023 in Local Port. The Remote Port must be 192.168.0.100 and the Remote Port must be 1000.



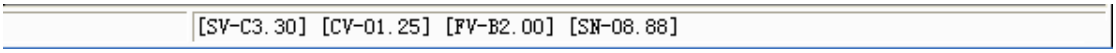
The COM Port is decided by operation system. Right click “my computer” icon on desktop, select Hardware→Device Manager in the system attributes dialog. The COM in red in the picture is the COM user can make choice.



Then click to open COM. 

will display after success to connect the COM.

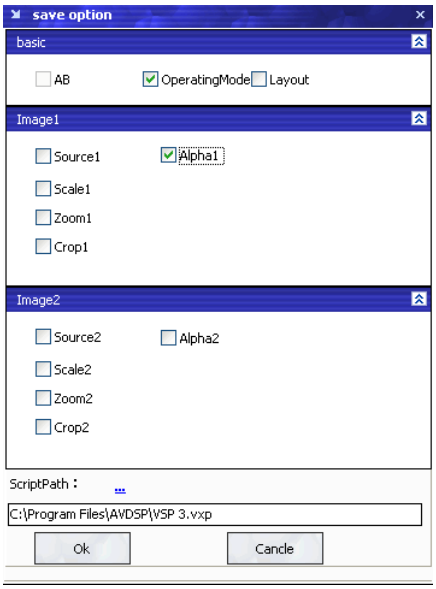
If AVDSP console success to detect device in chain, the software version, device core version, firmware version and serial number will display on the bottom right corner of the screen.



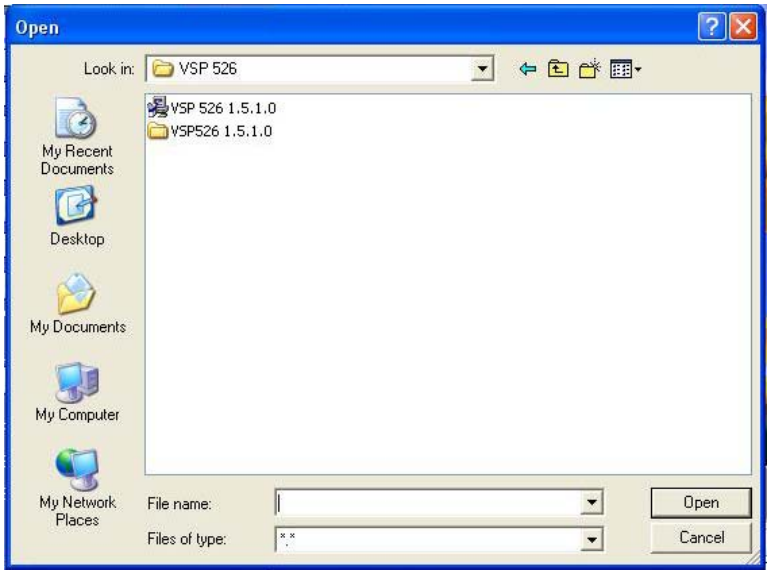
5 How to use

Operator can check parameters by software.

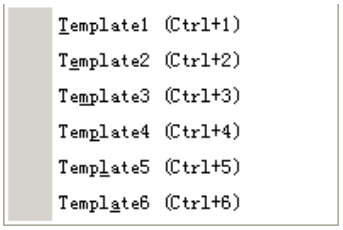
: Save script. Save current user config parameters as script.



: Open script. User can open saved script.



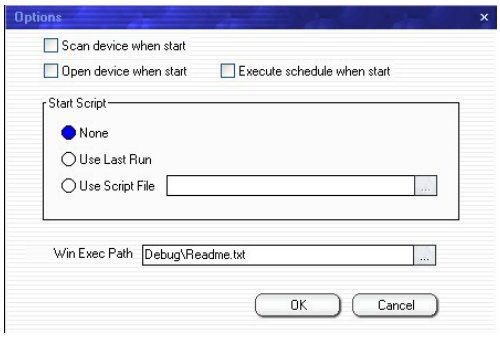
: Import template. There are six templates for user.



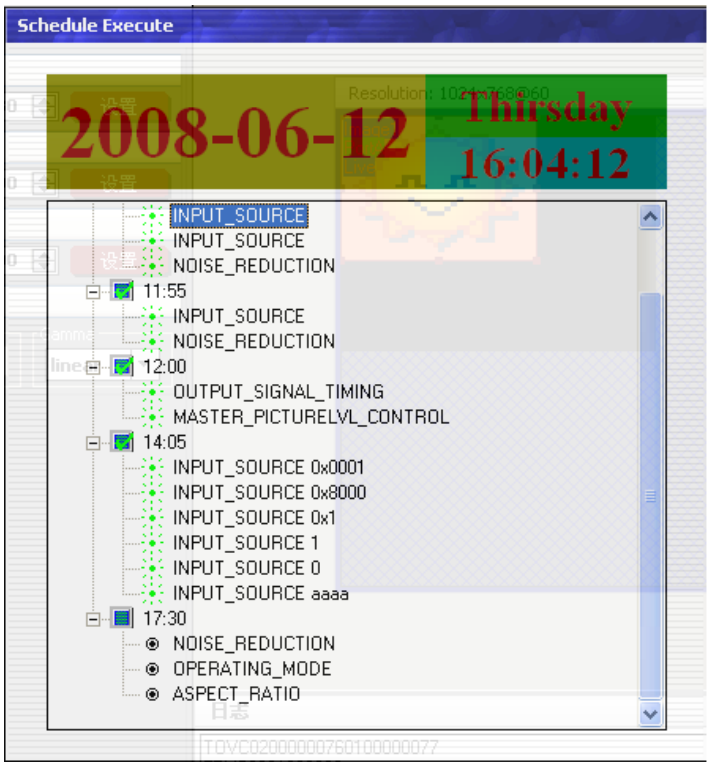
：Save template. Save the current config, there are six templates for user.

：Option. User can choose open device when start and using script saved before or execute schedule edited before when start.

If user choose open device when start, user can use last run config, use script file or none when user start. User can click to choose which script user want to open.



If user choose execute schedule when start, the next dialogue will display when software run.



: Language. The software supports Chinese and English version. The picture following is the Chinese dialogue.

: Exit.

- **Communication**

: Open COM.

: Close COM.

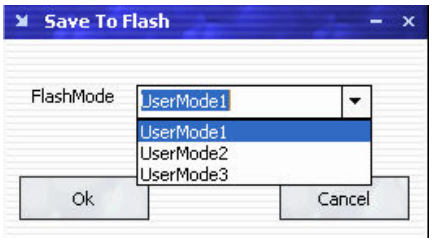
: Set COM.

: Search Device

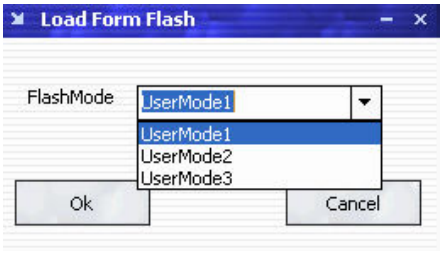
- **Device**

: Synchronization; Click the button to synchronize setting parameters on device and PC software, as well as data for EPROM splitting mode.

: Save to flash

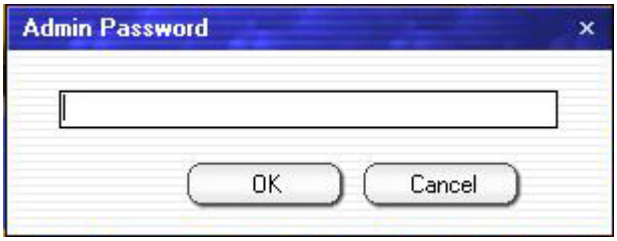


: Load form Flash.

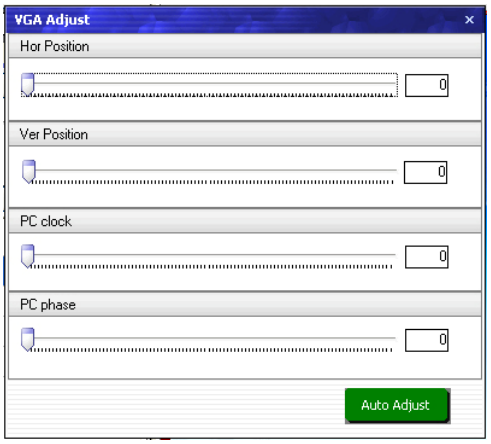


: Factory setup；Click this button to recall the factory setting.

: Advance, for administrator control.This is only open to Technical Engineer, please contact us to get password if needed.



: VGA Adjust: push this button to set auto adjustment for VGA inputs

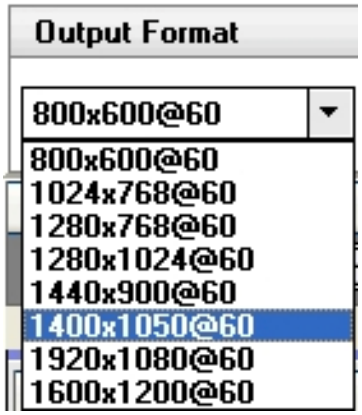


- **Help**

: Help. Click to open helps file.

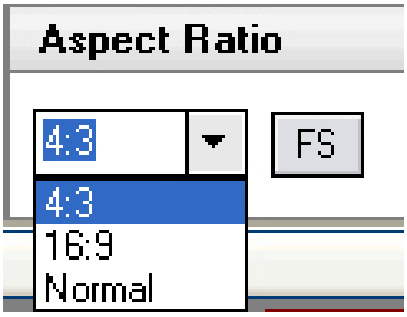
: About. Click to show the version number of Software and Company Contact information.

- **Output resolution:** user can choose different output resolution by selecting from pull down list.



- **Input resolution**：it will show resolution of current input source after communication finish.

- **Aspect Ratio:** user can push pull down menu and select to switch between 4：3, 16：9 and normal；



- **Input:** the white area displays the name of input interface when the mouse is over the interface picture on the left. The orange pane means current selected interface.

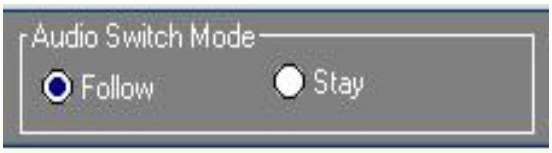
- **Screen parameter:**

Screen parameters are used as reference for FS function， after set the parameters, when user push FS button on the front panel or the software, the image will switch to screen parameters setting size if originally display as full screen, and switch to full screen if originally display as screen parameters settings.

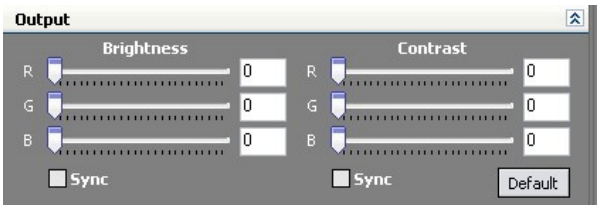
- **Images:** User can scale the images by entering the data or dragging image to zoom out. And enter data by Set button push will set Zoom and Crop. Zoom and Crop function are only valid in administrator mode.

- **Display Toolbar:** there are two display modes，choose “dynamic Video” to play video normally, choose “ static current” to freeze the current frame of the video.

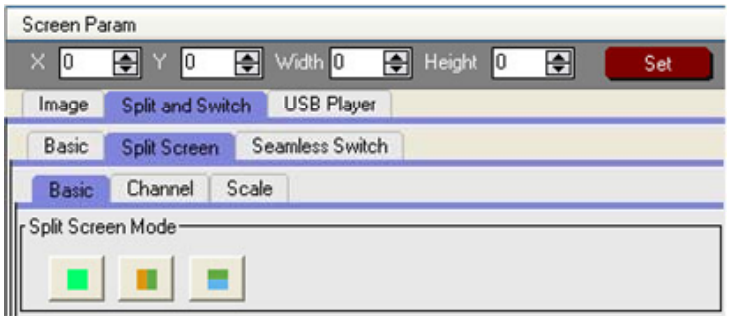
- **Audio Switch:** If choosing ” follow” option, audio will switch automatically as input source changes; If choosing “ Stay”, the audio will stay the same even the input source switch.



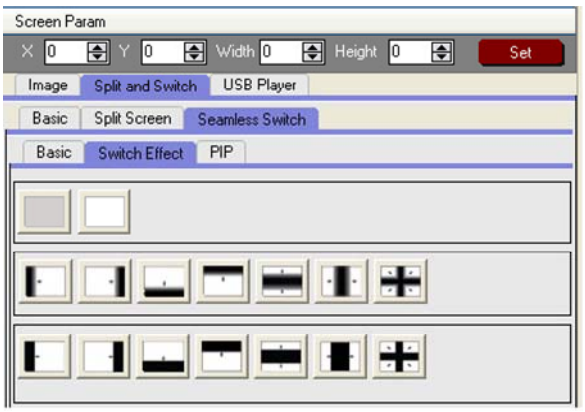
- **Output:** user can customize the brightness and the contrast.



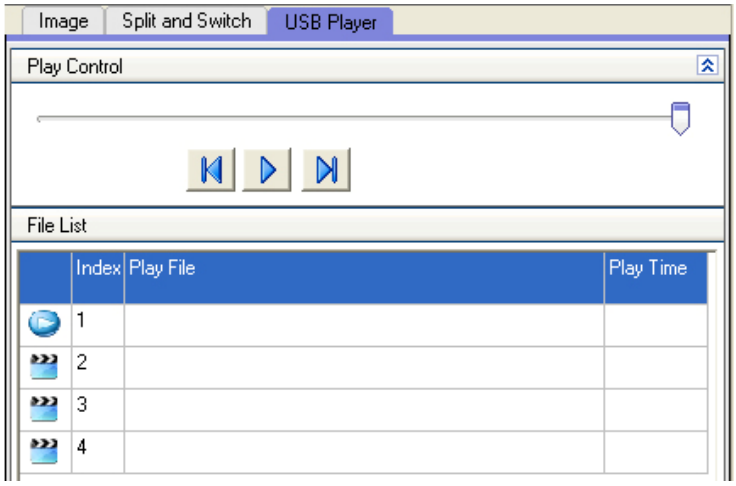
- **Mosaic:** use mouse to push mosaic function page on the software,select horizontal mosaic or vertical mosaic and set X,Y position in need .



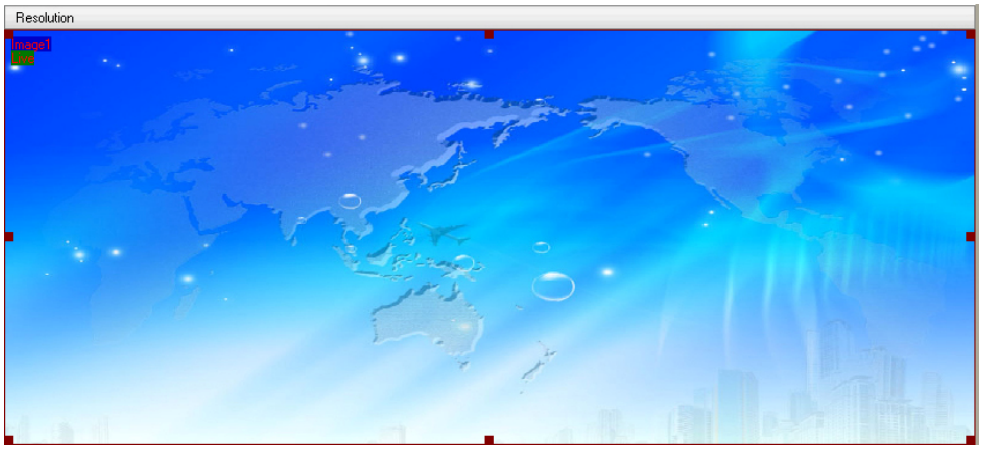
- **Seamless switch:** use mouse to push seamless switch page on the software,select seamless function by click and click on the source to switch with the effect.



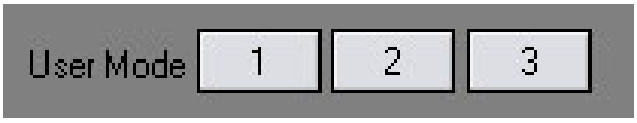
- **Media player menu:** click the files in the list can play the media files directly, and can also select the files need to play, VSP 526 will run the files according to the index value of the files. And user can schedule when to play after refer to the play time values.



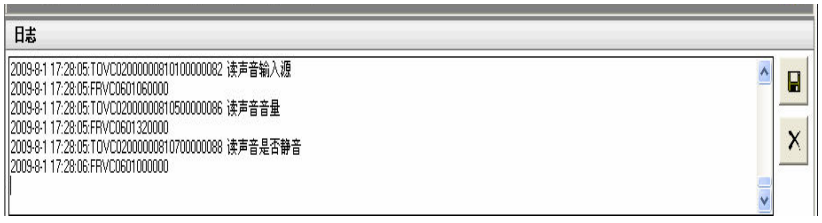
- **Display:** user can customize image or images position and size just by drag and drop image (images) in this area. This process can sync to the parameters in images toolbars.



As following，There are 1~3 user Mode for you to recall.

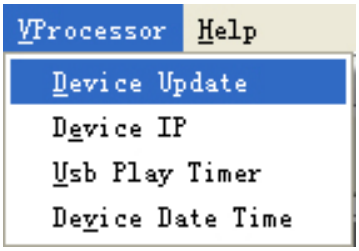


- **Log:** user can save or delete the operate log file



Additional functions

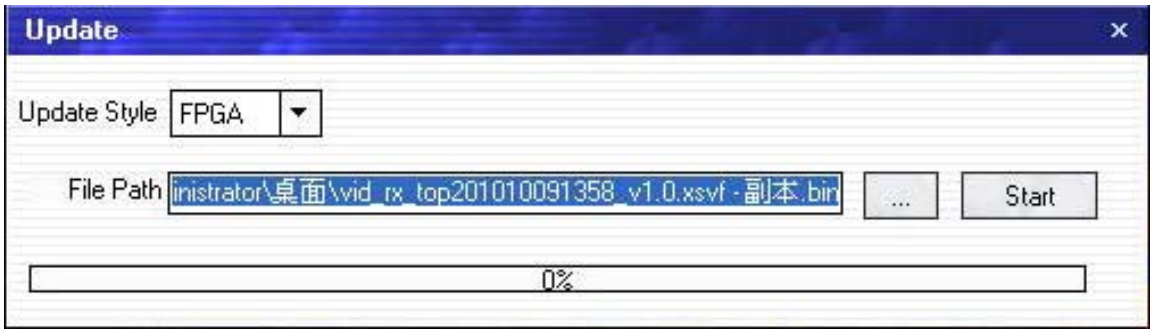
- Device Update



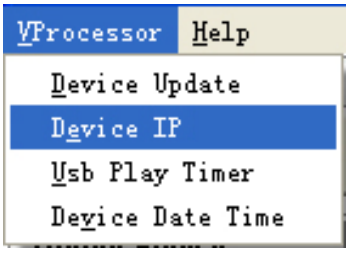
user can upgrade device by clicking here to update the FPGA program.

Click to get the following dialog box，click

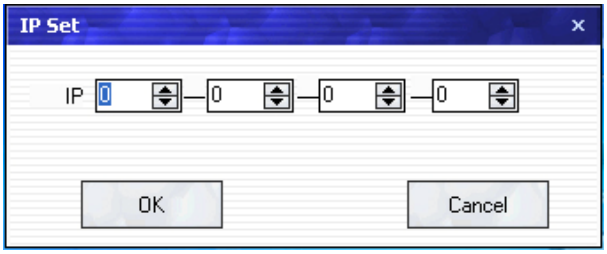
to find FPGA program in your computer, click star to complete the upgrade.



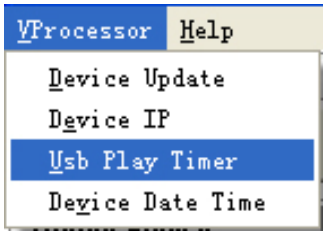
- **Device IP**

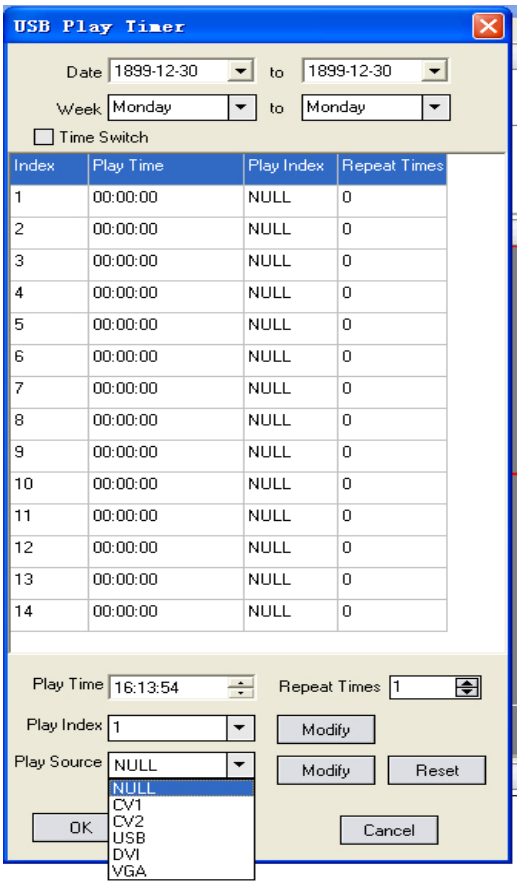


Users can set equipment IP, Usually used under the condition of one computer control or remote control several computers.



- **USB Schedule function**





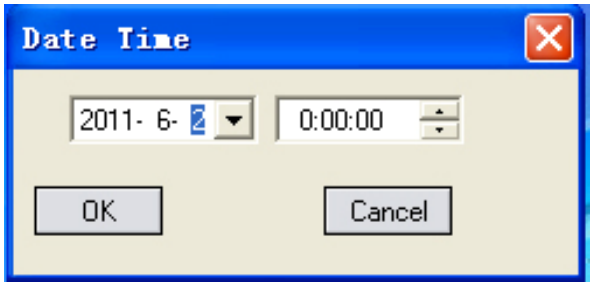
User can use “USB media player schedule setting” menu to run the source switch or media files schedule design. Now it can support max 14 schedule rules.Following is the step to design the schedule.

1. Set the start running date and stop running date on Date position;
2. Set the week day in Week setting position;
3. Turn on the schedule switch by check the “Time Switch”;
4. Set the play time for each file (which work by play index);
5. Set the repeat time for each file, which can be control from pull down menu or input times directly;
6. Set the input source control in Play Source position;

After setting finish, click “OK” to start to run the schedule function.

- **Device Date Time**

Remember to set the Device Date Time to the same to the local time, and after set, can check also on the front panel LCD module.
After factory reset, all schedule function need to set again.



7.0 FAQ

7.1 No output in target display

1）Check the output config of the input video

2）Check the input channel config is ok. For example. The composite 1 interface is connected to the composite interface of video source

3）Check the connection of output is ok

4）Check the target monitor or display is not destroied or power down

5）Check the output resolution of AVDSP is not out of the maximal resolution of target display

6）Any requirement ,please feel free to contact out customer service engineer

7.2 VGA input could not work with AVDSP console

1）Check input source output is ok

2）check VGA input resolution is not of AVDSP Console support list , as following the biggest input resolution is 1024*768*60Hz

3）Check AVDSP console work in VGA input mode

4）Through the automatic gain correction phase output setup menu

5）Any requirement ,please feel free to contact our customer service engineer

7.3 DVI input could not work with AVDSP

1）Check DVI source is ok

2）check DVI input resolution is not of AVDSP Console support list , as following the biggest input resolution is 1024*768*60Hz

3）Check AVDSP work in DVI input mode

4）Check the connection between AVDSP and DVI source is correct. Restart DVI sourse and check output

5）Any requirement , please feel free to contact our customer service

engineer

7.4 Component input could not work with AVDSP

1）Check the connection between AVDSP and Component source is correct , details please see the "Quick Guide" on page 4, component interface specification

2）Check the before device YCbCr / YPbPr indeed be open. DVD in many settings, change the option requires a separate open

3）Check the SVideo cable and YCbCr / YPbPr is also connected from the DVD, part of the DVD can not simultaneously support similar to the two load

4）Any requirement , please feel free to contact our customer service engineer

7.5 User settings can not save

VSP 526 supports multi config mode. For multi config mode , the equipment starts to work automatically with the SAVE1 mode .According to different equipments ,you can solve the problems that modes can't be saved by the following steps.

VSP 526

1）Comfirm to press the "SAVE"button, then press "SAVE1".or "SAVE2",or "SAVE3",that will save the current operation mode to the "user mode1""user mode2"or "user mode3" after that ,push button "SAVE1".or "SAVE2",or "SAVE3",it will call out the corresponding setting of user-mode if that the saving is successful

2）After saving process, user should not do factory reset or any saving operation to user mode 1 otherwise,"SAVE1"will be over write.

3）Recognized in the implementation of the save operation, the user is not saved for other operations again

Any requirement , please feel free to contact our customer service engneer

8.0 Quick Start

8.1 single-screen control

1. Set screen parameters

Users can easily change the screen size and location by setting the parameters with keyboard and LCD menu

Press MENU to access main menu ,Menu shows as below picture:

Press UP/DOWN button to turn the menu shown as below picture

Step：Set the unit of zoom and move every time

HSize：Set Horizontal size；

VSize：Set vertical size

HPos：Set horizontal coordinates(horizontal phase)；

VPos：Set vertical size(vertical phase)

2. Scale pictures

SCALE zoom button to set the video image of the horizontal / vertical dimensions or coordinates, you can touch the UP (on) / DOWN (below) is selected, the touch SEL (confirm) the corresponding button in the menu select the appropriate option

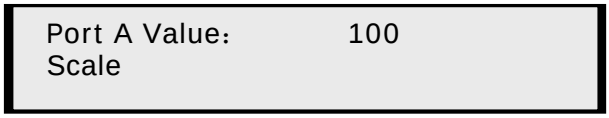
Step： Set the unit of scale and move every time (three steps avalable 1,10,100)

HSize：Set Horizontal size；

VSize：Set vertical size；

HPos：Set horizontal coordinates(horizontal phase)；

VPos： Set vertical size(vertical phase)



3.Set Alpha

Enter Alpha sub-menu can set alpha or video ,press UP/DOWN to set the value of alpha ,port A and port B represent two video channels

4.Set brightness contrast

BRT brightness and contrast button can set brightness and contrast of active window video shown as below pictures:

BRT brightness and contrast button can set brightness and contrast of activewindowvideoshownasbelowpictures:

5. Freeze Frame

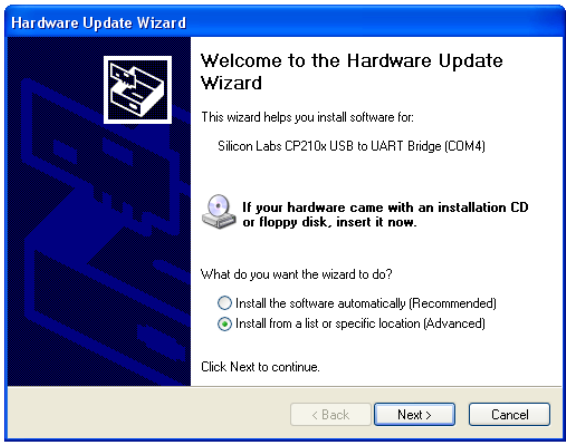
press FRE static frame button can freeze, press the button can freeze current active window image; you can make the screen switch between static and active with this button; picture show as below :

Or

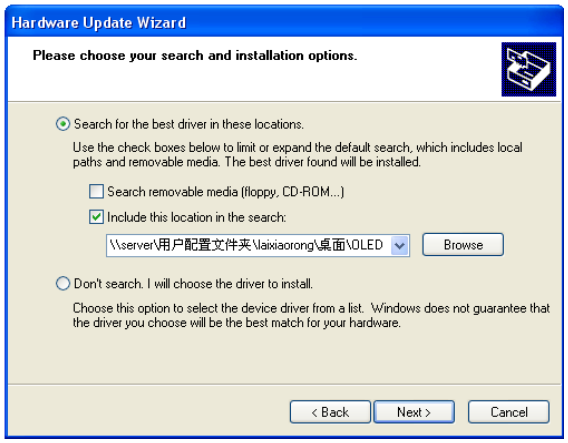
8.2 How to control processor with console software by USB ?

1. install the driver

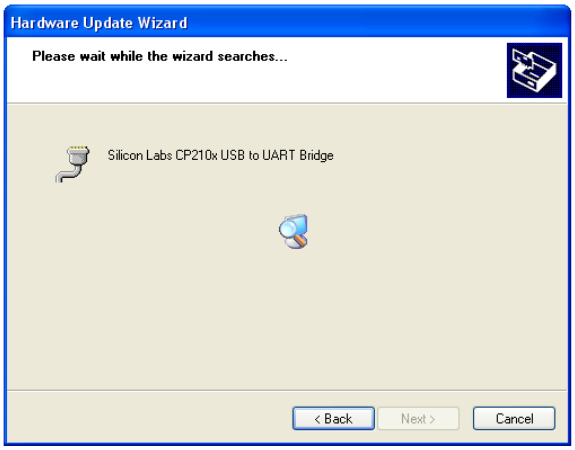
Connect the USB cable to the PC and the video processor .turn on the VSP 526,for the first time to use USB , the PC will remind finding the new hardware and ask to install the driver for this new driver


Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Silicon Labs CP210x USB to UART Bridge (COM4)
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

Install from the list or specified location ,press “NEXT”

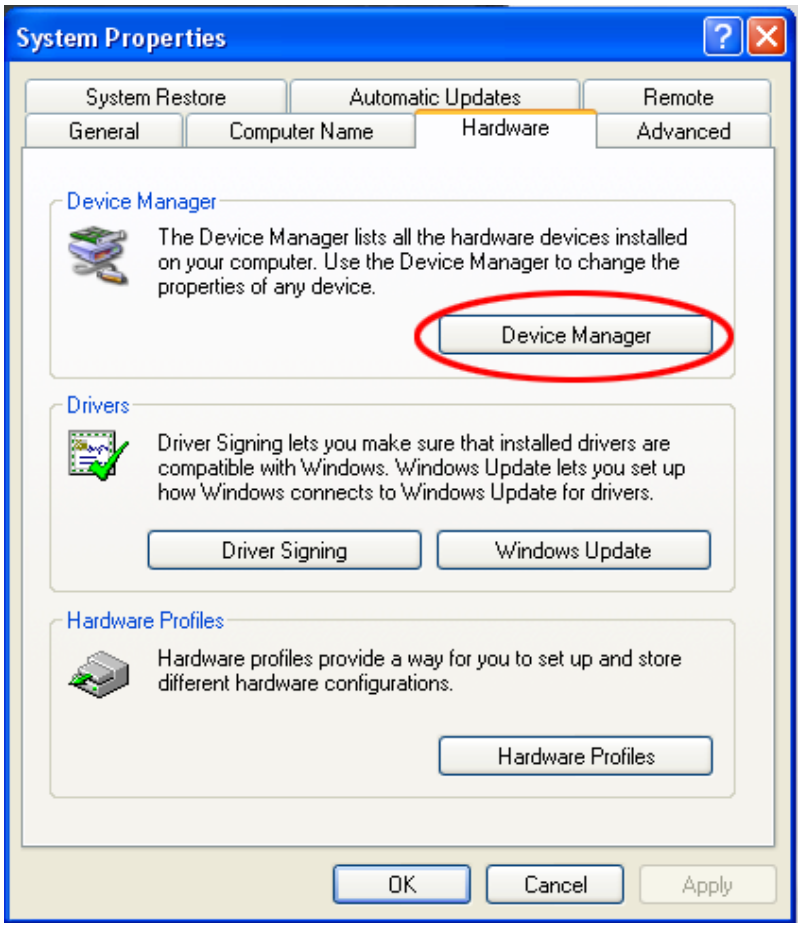

Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
\\server\用户配置文件夹\laixiaorong\桌面\OLED
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

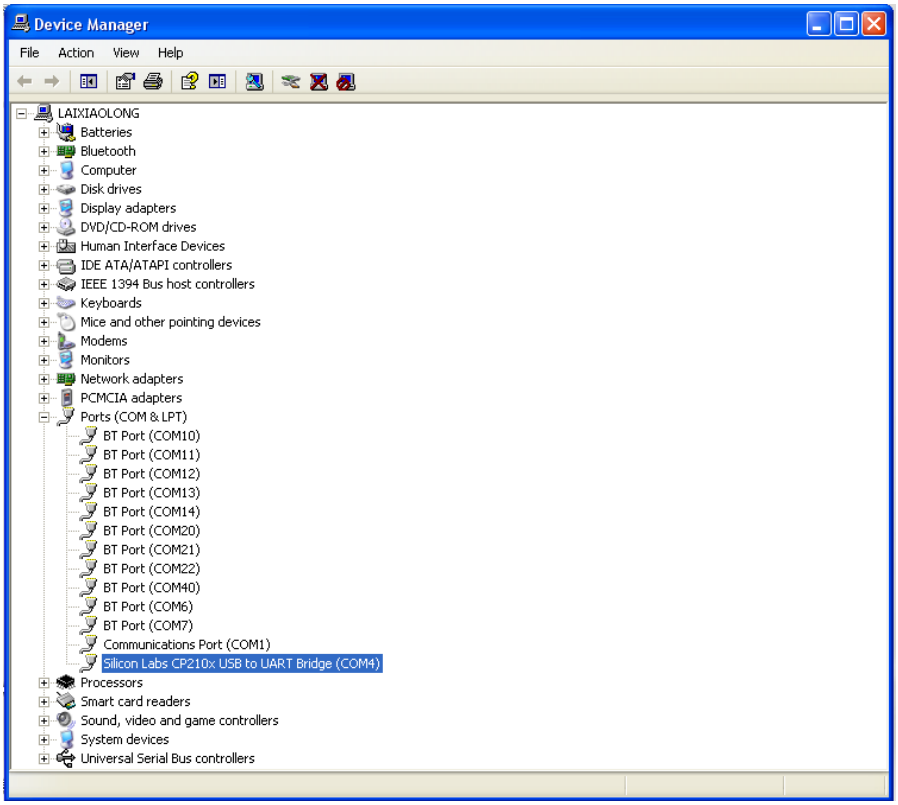
Press “browser” to find the driver, and press “NEXT”



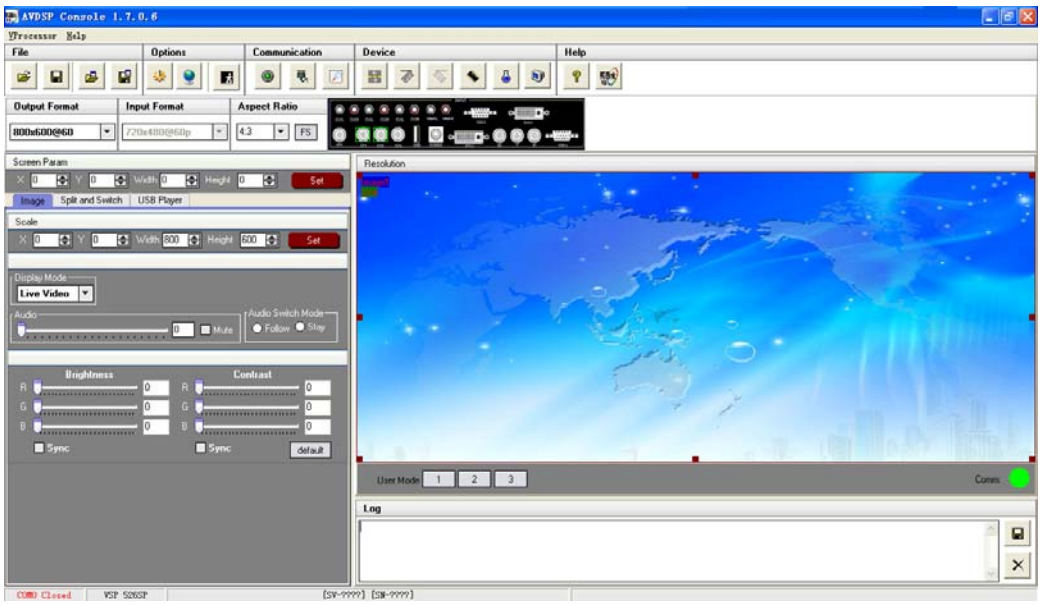
Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
MCB2300 USB VCom Port
Click Finish to close the wizard.
< Back
Finish
Cancel

When the installation finish,can go to check the installed COM port inside the device mangement ,as following picture show”

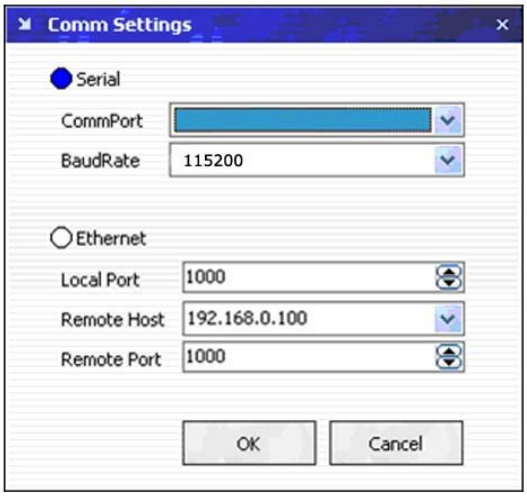

System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply



2.Install the console software, and run after install,shows the interface of the console as following



: Set the RS232 as installed just now, and set the VSP 526 Boud Rate to be :115200



Press to start RS232 communication, when there is green point in the right down corner showing on the sofwware, it means the communication is ok ,and you can use the software to control the device now ;

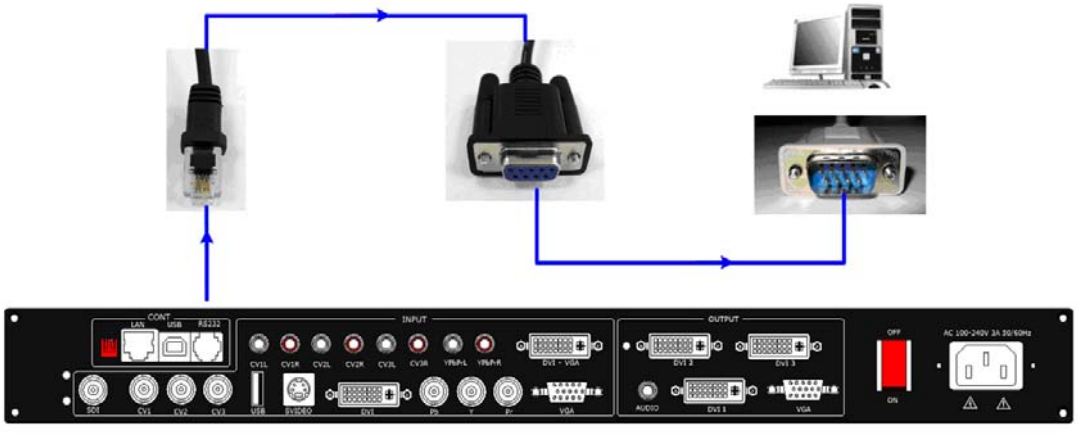
	If power off during communication,should close the port by first , and plug in out of the USB and do communication again

9.0 Appendix

9.1 Appendix I Download the IP sofeware

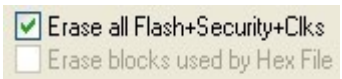
Turn off the power , take the two coding switch to “ON”sate as below :

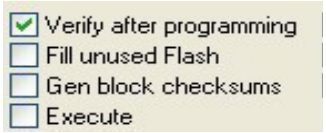
Connect one side of the RJ11 download line to the RS232 on the video processor,and the other side to be connected to the serial port on the PC



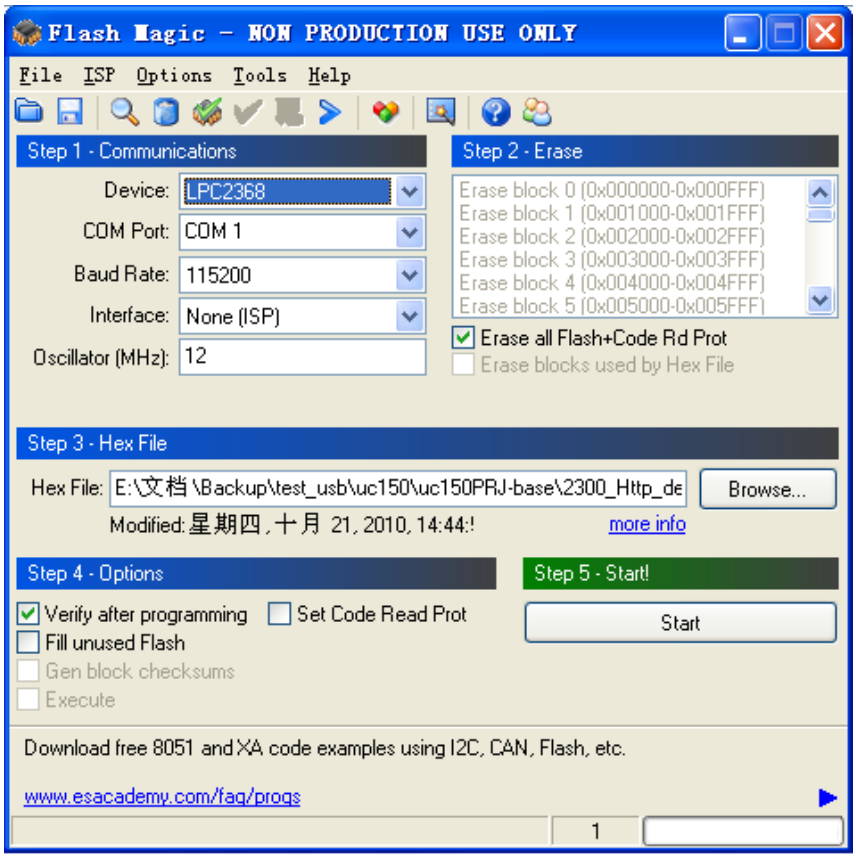
Double click :to run flash magic , setting as below :

First, users can choose the right serial port ,set the baud rate to 9600, choose LPC2368, and to load the aim document(hex.document)of Ipboard upgrading secondly , confirm the two option box by tick.





Finally,click the “start”button



After download , exit the program ,turn off the power ,tack the two coding switch back ,as below restart the equipment power ,check if the equipment work normally .

	Flash Magic download website
	http://www.flashmagictool.com/download.html&d=FlashMagic.exe